DISCOVERY OF THE LARVA OF *AGONOPTERIX ASTRANTIAE* (HEINEMANN) IN BRITAIN'

By R. J. HECKFORD* and J. R. LANGMAID**

The first British specimen of *Agonopterix astrantiae* (Heinemann) was taken by Mr. Bainbrigge Fletcher (1935) on 29th July 1933 in a wood in the Stroud district of Gloucestershire. This is in the "British" collection of microlepidoptera in the British Museum (Natural History).

Ford (1949), in his Presidential Address on 28th January 1948, to the South London Entomological and Natural History Society reviewing the microlepidoptera added to the British list since Meyrick (1928), included *astrantiae* and mentioned the specimen taken by Fletcher. He also stated that Mr. B.B. Snell "took three examples in the North of England last year." In the same volume of the Proceedings is a list of lepidoptera shown at the Annual Exhibition of the Society on 25th October 1947. This list refers to an exhibit by Mr. B. B. Snell of *astrantiae* "from North Wales". No mention is made of how many specimens Mr. Snell exhibited nor when the specimens were taken, but these must be the same as those referred to by Ford.

The Ford collection in the British Museum (Natural History) contains three specimens all taken by Mr. B. B. Snell. Two are labelled "Llanarmon, N. Wales. 11.8.1947. B. B. Snell light". The third has a label which is difficult to read but the locality appears to be Llanarmon again. The date looks like "8.8.1948". Therefore Ford's reference to "North of England" appears erroneous.

Mr. H. N. Michaelis tells that in August 1950 he went with Mr. B. B. Snell to Llanarmon where they found four specimens. He also tells us that a Dr. or Mr. Greenwood has taken an example at Grassington, Yorkshire.

Jacobs (1956) states that "odd specimens have been recorded from the southern half of England principally in m.v. light traps". Mr. Jacobs tells us that these records were from one or two people who mentioned the species at meetings of the South London Entomological and Natural History Society. We have not been able to trace any published records between 1948 and 1955, and therefore do not know when and where these specimens were found.

The next and, until now, last recorded specimens were two males and one female taken by Dr. E. Scott (1961) at Westwell, Kent at m.v. light on 2nd, 3rd and 4th August 1961, one of which is in the "British" collection of microlepidoptera in the British Museum Also, until now, it appears that *astrantiae* has not been taken in the larval stage in Britain. On the continent it feeds on *Astrantia major* and *Sanicula europaeus* in June, the imago appearing in late July and August, and not hibernating. It occurs in Sweden, Denmark and is fairly widely distributed in Central Europe, where it appears to be

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confined to hilly and mountainous regions (Palm 1973 and Toll 1964).

On 20th June 1980 we visited a wood in Sussex, which for the time being will not be more precisely identified. The ground flora consisted almost entirely of *Sanicula europaeus* with some ivy and bramble. The trees were oaks with some hazel bushes.

One hour's close searching of the *Sanicula* produced several *Tortrix* pupae spun up in the leaves and three larvae. We also found a few empty spinnings but no more than half a dozen.

Two of the larvae appeared to be the same. Our description of them is as follows: larva dull green with the gut showing through as a darker green dorsal line; head and prothoracic plate black, in one larva the plate was bisected longitudinally by a fine white line; pinacula black; anal plate dull green. This appeared to fit the description of *astrantiae* made by Meess (Spuler 1913).

One of these larvae had rolled the edge of a leaf upwards and spun this to another leaf. The other had spun one leaf on top of another. Both were nearly full grown. Unfortunately one produced a parasite. The other pupated on 28th June 1980 and on 17th 1980 *astrantiae* emerged.

The third larva produced *Pandemis corylana* Fab. *Aleimma loeflingiana* (Linn.), *Tortrix viridana* (Linn.) and *Gypsonoma dealbana* (Frol.) emerged from the *Tortrix* pupae. Presumably these had not been feeding on the *Sanicula* but had simply pupated there after descending from the oaks.

While it is impossible to say what had been feeding in the empty spinnings, it is likely that some had been tenanted by *astrantiae.* However it seems that it must occur at low density, at least in this locality. Perpaps this is true wherever the moth occurs in this country. Nevertheless any area where *Sanicula* flourishes may well produce this species.

Acknowledgements

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TERRITORIAL, BEHAVIOUR IN BRITISH BUTTERFLIES – I have been following the articles on territorial behaviour patterns of certain butterflies with interest. The recent article by W. G. Shreeves *(Ent. Rec.,* 92: 267-269) contains a reference to the Purple Hairstreak *(Quercusia quercus* L.) being a "percher" which would also intimate that it also adopted territory, or the male at least. In this country *quercus* is hardly gregarious and in the localities of which I know, is rarely seen in numbers exceeding 5 - 10. In an attempt to stimulate discussion, is it possible that species behave differently in different climatic conditions?

On returning from S. W. France in 1979 we turned off the motorway at Bolléne, north of Orange, in the Department of Vaucluse and stopped at about mid-day for lunch. The air temperature was about 75°F. and there was very little breeze. During a short search to see what was about I disturbed a colony of *Q. quercus* inhabiting an olive tree and took a short series of five males and five females from about 50-60 seen. The numbers of males and females were fairly equally distributed. Only single specimens were seen on other surrounding trees in the neighbourhood. The specimens were fairly fresh although some damaged insects were seen, probably as a result of flying in and out of the tree.

The date was the 5th of August, and I understand the weather had been good so that emergence had not been delayed. The time of appearance would thus be the same as in the U.K. but the gregarious behaviour was a new phenomenon to me. Could this behaviour pattern be in any way connected with the pre-migratory tendencies of some of the Vanessids or was it just the hot weather? – M. S. HARVEY, Highfields House, Highfields, Ashtead, Surrey.

THE LARVA OF EUPITHECIA TRISIGNARIA HERRICH-SCHAFFER. – Brigadier Simson's interesting notes on the British Pugs refer *(antea,* p.10) to the larva of *E. trisignaria* as being readily identifiable by its black head. I had always thought that this was so until finding on 5 Sep. 1976 at Durris, Kincardineshire a single larva on *Angelica* with a green head. Its head remained green until the larva pupated and a normal moth appeared the following July.

Last September at Ceinws, Montgomeryshire, Dr. J. R. Langmaid and I found larvae on *Angelica* some of which had pale brown heads, mottled with darker markings. Normally the dark green longitudinal dorsal and sub-dorsal stripes are characteristic, but some of these larvae had stripes scarcely darker than the ground colour. In this locality a few (normal) larvae were also found on *Heracleum.* – E. C. PELHAM-CLINTON, Royal Scottish Museum, Chambers St., Edinburgh.